

What is claimed is:

1. A computer implemented method for providing compact representation of data, the method comprising:
  - 5 logically separating the data into graphical data and multimedia data; and providing at least three sequencing schemes within the multimedia data by: providing a first sequencing scheme comprising a hierarchical structure of bounding boxes serving to synchronize displayed graphical data with a series of time ordered events;
  - 10 providing a second sequencing scheme comprising a sequence map containing one or more tracks, each track being a path through the hierarchical structure of bounding boxes; and
  - providing a third sequencing scheme comprising at least one time map defining the series of time ordered events.
2. The method of Claim 1, wherein the graphical data are a musical notation, and wherein the series of time ordered events correspond to a musical performance.
3. The method of Claim 1, wherein the hierarchical structure of bounding boxes is defined for a musical score.
4. The method of Claim 2, wherein providing the third sequencing scheme comprises providing a plurality of time maps corresponding to a plurality of musical performances.
5. The method of Claim 1, wherein providing the three sequencing schemes is done server-side before transmitting the data to a user.
6. The method of Claim 1, further comprising providing a single bit for each track defined in the sequence map, each single bit for each track indicating whether a bounding box is associated with a time event.

7. A system for compressing data, the system comprising:

a server storing the data, the data having graphical data logically separate from a multimedia data;

the multimedia data comprising a plurality of data subsets; and

the data subsets comprising:

a plurality of bounding boxes, the bounding boxes having a hierarchical structure;

a sequence map containing one or more tracks, each track corresponding to a sequence of the bounding boxes; and

a time map synchronizing the sequence map with an audio or video recording.

8. The system of Claim 7, further comprising a display for visualizing graphical data and multimedia data.

9. The system of Claim 7, wherein one or more bounding box of the plurality of bounding boxes is tagged with information which can be added or removed and which is displayed in response to a user's request.

10. The system of Claim 7, wherein the plurality of bounding boxes defines locations of the graphical data on the display.

11. A computer implemented method of providing interactive graphics via a computer network, the method comprising:

providing logically separate graphical data and multimedia data sections corresponding to the interactive graphics;

providing a hierarchical set of bounding boxes within the multimedia data section; and

utilizing a hierarchy of bounding boxes to facilitate positioning and zoom of the displayed interactive graphics in response to a user's input.

12. The method of Claim 11, further comprising utilizing the hierarchy of bounding boxes to facilitate hi-lighting of the displayed interactive graphics according the user's input.

13. The Method of Claim 12, further comprising hi-lighting of the displayed interactive graphics in synchronization to an external performance.

14. A system for providing interactive graphics, the system comprising:

a server containing graphical data and multimedia data corresponding to the interactive graphics; and

a hierarchical set of bounding boxes within the multimedia data, the bounding boxes facilitating positioning and zoom of the displayed interactive graphics and hi-lighting the displayed interactive graphics in response to a user's input, and hi-lighting the displayed interactive graphics in synchronization to an external performance.

15. The system of Claim 14, further comprising a computer network allowing the user to download the interactive graphics from the server.

16. The system of Claim 14, wherein the interactive graphics is sheet music and wherein the external performance is a musical performance.

17. A method of compressing graphical data, the method comprising:

providing a server storing the graphical data;

providing a hierarchical structure of bounding boxes controlling display of the graphical data on a viewing device; and

utilizing contiguity and hierarchy of the bounding boxes to eliminate repetitive encoding of contiguous elements of bounding boxes, thereby reducing the number of bytes used to represent the graphical data and providing compressed graphical data.

18. The method of Claim 17, further comprising defining a position of a subsequent bounding box on the viewing device in terms of an offset from a previous bounding box.

19. The method of Claim 17, further comprising transmitting the compressed graphical data via a computer network between the server and a user.

20. The method of Claim 17, further comprising facilitating the user's interaction with the graphical data by programming the viewing device to be able to determine hierarchical relationships of all bounding boxes in the hierarchical structure.